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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/777,724
Filing Date: February 12, 2004
Appellant(s): ARNDT ET AL.

Brandon G. Williams
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 2/192009 appealing from the Office action mailed 10/3/2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US 6,467,007 - Armstrong et al., 10-2002
US 2001/0056500 – Farber et al., 12-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Armstrong et al. (US 6467007).

As per claim 1, Armstrong et al. teach

a method for managing shared resources in a logical partitioned data processing system – fig. 1: data processing apparatus; fig. 2: logical partitions with partition manager for shared services; col. 1, lines 43-67; col. 4, line 55 to col. 5, line 65.

granting, by a server partition in the logical partitioned data processing system, a logical resource owned by the server partition to a client partition in the logical partitioned data processing system – fig. 2, the primary partition (A) is the server partition, the secondary partition (B)/(C) is the client partition; col. 5, lines 23-65.

communicating an identifier from the server partition to the client partition; and responsive to the client partition accepting the identifier, mapping, the logical resource into a logical address space of the client partition, wherein the mapping is performed by the client partition – col. 1, line 52-67 (a partition manager, often referred to as a “hypervisor” or partition manager, manages the logical partitions and facilitates the allocation of resources to different logical partitions.…maintains separate virtual memory address spaces for the various logical partitions so that the memory utilized by each logical partitions is fully independent of the other logical partitions. One or more address translation tables are typically used by a partition manager to map addresses from each virtual address space to different addresses in the physical, or real, address space of the computer…so that the shared memory can be accessed directly by the logical partition. Examiner interprets that the Address Translation Tables store IDs that the clients can use to access resources across partitions); col. 5, lines 23-65 (each logical partition 40-44 executes in a separate memory space, represented by virtual memory 60. Moreover each logical partition is statically and/or dynamically allocated a portion of the available resources in computer 10…Resources can be allocated in a

number of manners…); col. 7, line 66 to col. 8, line 36.

As per claims 2-4, Armstrong et al. teach

generating an identifier for the logical resource, wherein the identifier is generated by a hypervisor; wherein the identifier is unique within the client partition – col. 1, lines 43-67; col. 7, line 65 to col. 8, line 35; fig. 3, virtual page number. Since each logical partition operates as a fully independent computer, its each logical resource id shall be distinct within the partition for translating/mapping and identification purposes and which separates from the resource outside of the partition, thus, cannot be used to access the logical resource outside.

As per claim 5, Armstrong et al. teach resources may be allocated to any logical partition in the alternative; moreover, resources can be reallocated on a dynamic basis to service the needs of other logical partitions – col. 5, lines 55-65; thus, when resources need be relocated, a client/secondary partition has to return the control of resource back to the primary/server partition.

As per claims 6-8, Armstrong et al. teach

rescinding, by the server partition, the logical resourse; responsive to a determination, at the server partition, that the client partition is incapable of gracefully returning the logical resource, performing a forced rescind operation; preventing translation tables in the client partition from containing references to a physical address of the logical

resource – col. 3, lines 13-56, especially lines 23-43 (requires that one or more entries in the address translation table be invalidated to ensure that a subsequent access to the virtual memory address space will attempt to access an unmapped virtual memory address).

As per claims 9-10, Amstrong et al. teach computer 10 need not be shut down if there is a hung processor in a partition; it is often desirable to initiate a reset operation to the hung partition supported by another processor. A reset request and a memory access interrupt are created…and sent to the problem partition…col. 3, lines 1-49; delay/waits at block 124 for the target processor to return to a known initial state by setting a timer and periodically checking the responsiveness of the target processor…col. 8, lines 35-59.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Armstrong et al. (US 6467007) in view of Farber et al. (US 20010056500).

As per claim 22, Amstrong et al. teach

communicating an identifier from the server partition to the client partition; and responsive to the client partition accepting the identifier, mapping, the logical resource into a logical address space of the client partition, wherein the mapping is performed by the client partition – col. 1, line 52-67 (a partition manager or hypervisor manages the logical partitions and facilitates the allocation of resources to different logical partitions….maintains separate virtual memory address spaces for the various logical partitions so that the memory utilized by each logical partitions is fully independent of the other logical partitions. One or more address translation tables are typically used by a partition manager to map addresses from each virtual address space to different addresses in the physical, or real, address space of the computer…so that the shared memory can be accessed directly by the logical partition. Examiner interprets that the Address Translation Tables store IDs that the clients can use to access resources across partitions); col. 5, lines 23-65 (each logical partition 40-44 executes in a separate memory space, represented by virtual memory 60. Moreover each logical partition is statically and/or dynamically allocated a portion of the available resources in computer 10…Resources can be allocated in a number of manners…); col. 7, line 66 to col. 8, line 36 (…the address translation table 92 with items virtual page number, real page number...The virtual page number can be interpreted as an identifier).

However, Amstrong et al. do not teach the identifier is a cookie. Farber discloses the sharing of resources and the partitioned cache into separate areas for each

subscriber – pars. 336-338; The resources relies on a so-called cookie - pars. 85, 329. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Amstrong's teaching with Farber's teaching in order to allow different ways of identifying of resources that partitions can request to share.

Response to Arguments

Applicant's arguments with respect to claims above have been considered but are not persuasive.

In the specification, Applicant discloses "The LPAR management firmware, also known as a hypervisor, maintains a list of all resources that a given partition may access, and when the operating system attempts to gain access to a new resource, the list is referenced to decide if the access should be granted. Normally, the hypervisor ensures that the resource lists of each partition are disjoint. By allowing a given resource to appear in the resource list of two or more partitions, that resource may be shared. What is more difficult, and the subject of the present invention, is managing the changes to the resource lists in such a way that the sharing operating systems can handle the various transitions in a graceful manner. In accordance with a preferred embodiment of the present invention, the hypervisor is modified to include four hypervisor functions plus a specific return code to manage the granting of access of resources owned by one partition to another (client) partition, accepting of granted resources by client partitions, returning of granted resources by client partitions, and rescinding of access by the owning partition. These four hypervisor functions are

invoked either explicitly by the owning and client partitions or automatically by the hypervisor in response to partition termination. The hypervisor functions provide the needed infrastructure to manage the sharing of logical resources among partitions.

" – pages 13-14.

Applicant also discloses "Granting access is accomplished by requesting that the hypervisor generate a specific cookie for that resource for a specific sharing partition. A cookie is an opaque reference number, which identifies an item, such as a resource in this case." – page 16, last paragraph; "the grantee's operating system may accept the shared logical resource and map the resource into the grantee's partition logical-to-physical map table 424." – page 20, 1st paragraph.

Examiner interprets granting of access of resources equivalent to allowing/permitting or authorizing of access of resources. Thus, regarding the Applicant's argument IA that Amstrong fails to teach "granting...a logical resource", Examiner disagrees.

The cited prior art discloses "

(5) With logical partitioning, a single physical computer is permitted to operate essentially like multiple and independent "virtual" computers (referred to as logical partitions), with the various resources in the physical computer (e.g., processors, memory, input/output devices) allocated among the various logical partitions. Each logical partition executes a separate operating system, and from the perspective of

users and of the software executing on the logical partition, operates as a fully independent computer.

(6) A shared resource, often referred to as a "hypervisor" or partition manager, manages the logical partitions and facilitates the allocation of resources to different logical partitions. As a component of this function, a partition manager maintains separate virtual memory address spaces for the various logical partitions so that the memory utilized by each logical partition is fully independent of the other logical partitions. One or more address translation tables are typically used by a partition manager to map addresses from each virtual address space to different addresses in the physical, or real, address space of the computer. Then, whenever a logical partition attempts to access a particular virtual address, the partition manager translates the virtual address to a real address so that the shared memory can be accessed directly by the logical partition." – col. 1, lines 43-67.

Examiner interprets the server partition's logical resources are the resources that are allocated for the primary partition in which these resources are mapped to the primary/server partition, thus, in a broadest sense, owned and operated by the server/primary partition and can be shared. Other partitions cannot access these resources without permission for sharing and mapping of addresses. The cited col. 7, line 66 to col. 8, line 36 disclose the address translation table 92 with items virtual page number, real page number...The virtual page number can be interpreted as an identifier. Claim 1 is broad in that Applicant has not described information regarding the identifier to further distinguish the limitation from the teachings of the prior art.

(10) Response to Argument

Argument A1a-c: Appellant argued “Armstrong does not disclose..."granting, by a server partition in the logical partitioned data processing system, a logical resource owned by the server partition to a client partition in the logical partitioned data processing system"”, pages 10-14.

In response to the Appellants’ above argument, Examiner disagrees. As cited in the Office Action on page 2, in figure 2, the primary partition (A) is equivalent to the server partition, the secondary/client partitions are (B), (C). Col. 5, lines 23-65 discloses "each logical partition 40-44 executes in a separate memory space, represented by virtual memory 60. Moreover, each logical partition 40-44 is statically and/or dynamically allocated a portion of the available resources in computer 10...in some implementations **resources can be reallocated on a dynamic basis to service the needs of other logical partitions**..." When the server partition reallocates the resources based on the needs of other partitions, it allows other partitions to access to or utilize the new allocated resources meaning that it is “***granting***” the resources to the client partitions and the partitions can then utilize the allocated resources. Therefore, resources can be shared between partitions based on needs. As shown in figure 2, the server/primary partition 40 contains the partition manager with the primary/server partition control item 50 and the shared service item 48. Address translation tables are provided in partition

manager 46 to respectively handle the virtual to real address translation operations for logical partitions 40, 42, and 44 respectively. Moreover, each processor 12 optionally includes a translation lookaside buffer (TLB) 32 or other cache structure that caches at least a portion of one or more address translation tables to accelerate the translation of virtual to real memory addresses, in a manner well known in the art. Therefore, it is not novel in the technological art that the client or the secondary partitions to do the mapping.

Regarding the Appellant's argument that "a partition manager is not a server partition" on pages 12-13, in the Final Office Action, Examiner cited on page 2, last paragraph that "the primary partition (A) is the server partition", the partition manager is an element in the primary/server partition.

Regarding the Appellant's argument on page 14 that "this processor reset, however, is not a "granting of a resource", Examiner explained the granting a resource in paragraphs above.

Argument A1d: "Armstrong does not disclose..."mapping the logical resource into a logical address space of the client partition, wherein the mapping is performed by the client partition", pages 14-16.

In response to the Appellants' above argument, Examiner disagrees. Col. 5, lines 23-65 discloses "each logical partition 40-44 executes in a separate memory space, represented by virtual memory 60. Moreover, each logical partition 40-44 is statically and/or dynamically allocated a portion of the available resources in computer 10...in some implementations **resources can be reallocated on a dynamic basis to service the needs of other logical partitions**..." When the server partition reallocates the resources based on the needs of other partitions, it allows other partitions to access to or utilize the new allocated resources meaning that it granting the resources to the client partitions and the partitions can then utilize the allocated resources. Therefore, resources can be shared between partitions based on needs. As shown in figure 2, the server/primary partition 40 contains the partition manager with the primary/server partition control item 50 and the shared service item 48. Address translation tables are provided in partition manager 46 to respectively handle the virtual to real address translation operations for logical partitions 40, 42, and 44 respectively. Moreover, col. 6, line 66 to col. 7, line 4, discloses: each processor 12 optionally includes a translation lookaside buffer (TLB) 32 or other cache structure that caches at least a portion of one or more address translation tables to accelerate the translation of virtual to real memory addresses, in a manner well known in the art. Therefore, it is not novel in the technological art that clients or the secondary partitions to do the mapping or maintain the address translation tables.

Regarding the Appellant's argument that "a partition manager is not a server partition", in the Final Office Action, Examiner cited on page 2, last paragraph that "the

primary partition (A) is the server partition", the partition manager is an element in the primary/server partition.

As shown in figures 2-3, the primary/server partition A contains the partition manager items 48, 50 and address translation tables 90-94. The address translation table shows the mapping between the virtual page number 104 and real page number 106 as one of the example row. The cited column 1, lines 52-67 discloses "a partition manager, often referred to as a "hypervisor" or partition manager, manages the logical partitions and facilitates the allocation of resources to different logical partitions.… maintains separate virtual memory address spaces for the various logical partitions so that the memory utilized by each logical partitions is fully independent of the other logical partitions. <u>One or more address translation tables are typically used by a partition manager to map addresses from each virtual address space to different addresses in the physical, or real, address space of the computer…so that the shared memory can be accessed directly by the logical partition</u>". col. 7, line 66 to col. 8, line 36. Appellant also argued that "A partition manager is not a partition, ...Armstrong teaches that only the partition manager grants resources" on page 16. Examiner cited on page 2, last paragraph that "the primary partition (A) is the server partition", the partition manager is an element of the primary/server partition. Therefore, functions performs by items 48 and 50 are parts of the primary partition's functions.

Argument A2, Claim 2: Appellant argues the limitation "generating the identifier for the logical resource, wherein the identifier is generated by a hypervisor" on pages 16-17.

In response to the Appellants' above argument, Examiner disagrees.

In the specification, Applicant discloses "The LPAR management firmware, also known as a hypervisor, maintains a list of all resources that a given partition may access, and when the operating system attempts to gain access to a new resource, the list is referenced to decide if the access should be granted. Normally, the hypervisor ensures that the resource lists of each partition are disjoint. By allowing a given resource to appear in the resource list of two or more partitions, that resource may be shared. What is more difficult, and the subject of the present invention, is managing the changes to the resource lists in such a way that the sharing operating systems can handle the various transitions in a graceful manner. In accordance with a preferred embodiment of the present invention, the hypervisor is modified to include four hypervisor functions plus a specific return code to manage the granting of access of resources owned by one partition to another (client) partition, accepting of granted resources by client partitions, returning of granted resources by client partitions, and rescinding of access by the owning partition. These four hypervisor functions are invoked either explicitly by the owning and client partitions or automatically by the hypervisor in response to partition termination. The hypervisor functions provide the needed infrastructure to manage the sharing of logical resources among partitions.

" – pages 13-14.

The cited prior art discloses "

(5) With logical partitioning, a single physical computer is permitted to operate essentially like multiple and independent "virtual" computers (referred to as logical partitions), with the various resources in the physical computer (e.g., processors, memory, input/output devices) allocated among the various logical partitions. Each logical partition executes a separate operating system, and from the perspective of users and of the software executing on the logical partition, operates as a fully independent computer.

(6) A shared resource, often referred to as a "hypervisor" or partition manager, manages the logical partitions and facilitates the allocation of resources to different logical partitions. As a component of this function, a partition manager maintains separate virtual memory address spaces for the various logical partitions so that the memory utilized by each logical partition is fully independent of the other logical partitions. One or more address translation tables are typically used by a partition manager to map addresses from each virtual address space to different addresses in the physical, or real, address space of the computer. Then, whenever a logical partition attempts to access a particular virtual address, the partition manager translates the virtual address to a real address so that the shared memory can be accessed directly by the logical partition." – col. 1, lines 43-67. As disclosed above, the partition manager or hypervisor or shared resource manages the logical partitions and

facilitates the allocation of resources to different logical partitions, it manages the logical resources' identifiers in order to identify/work with logical resources.

In addition, the cited col. 7, line 66 to col. 8, line 36 disclose the address translation table 92 with items virtual page number, real page number... as shown in fig. 3, the virtual and real page numbers/addresses are interpreted as identifiers. Claim 2 is broad in that Applicant has not described information regarding the identifier to further distinguish the limitation from the teachings of the prior art.

Argument A3, Claim 5: Appellant argues the limitation "returning, by the client partition, the logical resource to the server partition" in that Armstrong's partition manager is not a server partition in the logical partitioned data processing system…Thus in the event that a partition is to release resources, Armstrong teaches that those resources would be returned to the partition manager, not the server partition", page 17.

In response to the Appellants' above argument, Examiner disagrees.

Regarding the Appellant's argument that "a partition manager is not a server partition", in the Final Office Action, Examiner cited on page 2, last paragraph that "the primary partition (A) is the server partition", the partition manager is one of the elements of the primary/server partition provides functions for the primary/server partition.

Figure 2 discloses the primary partition A contains different items including items partition manager (primary partition control) - item 50, partition manager (shared services) – item 48; and address translation tables – items 90-94 etc…Appellant provides no column or lines to support the argument that "in the event that a partition is to release resources,...those resources would be returned to the partition manager". Because the partition manager is one of the elements of the primary/server partition to provide functions for the primary/server partition, the returning logical resources are managed within the server/primary partition.

Argument A4, Claim 6: Appellant argues "…Armstrong's partition manager is not a server partition in the logical partitioned data processing system…in the event that a partition is to release resources, Armstrong teaches that those resources would be returned to the partition manager, not the server partition…", page 18.

In response to the Appellants' above argument, Examiner disagrees.

Regarding the Appellant's argument that "a partition manager is not a server partition", in the Final Office Action, Examiner cited on page 2, last paragraph that "the primary partition (A) is the server partition", the partition manager is one of the elements of the primary/server partition provides functions for the primary/server partition.

Figure 2 discloses the primary partition A contains different items including items partition manager (primary partition control) - item 50, partition manager (shared services) – item 48; and address translation tables – items 90-94 etc…Appellant

provides no column or lines to support the argument that "in the event that a partition is to release resources,...those resources would be returned to the partition manager". Because the partition manager is one of the elements of the primary/server partition to provide functions for the primary/server partition, the returning logical resources are managed within the server/primary partition.

The cited col. 3, especially lines 39-41 that “Generation of a memory access interrupt then typically requires only that one or more entries in the address translation table be invalidated…” and because the primary/server partition’s partition manager manages the translation tables and logical resources, the logical resource is rescinded/cancelled by the server partition.

Argument A5, Claim 8: Appellant argues the limitation “preventing translation tables in the client partition from containing references to a physical address of the logical resources”, pages 18-20.

In response to the Appellants’ above argument, Examiner disagrees. Col. 3, lines 13-56, especially lines 23-43, discloses that <u>one or more entries in the address translation table be invalidated to ensure that a subsequent access to the virtual memory address</u> space will attempt to access an unmapped virtual memory address. In addition, col. 6, line 66 to col. 7, line 4, discloses: <u>each processor 12 optionally includes a translation lookaside buffer (TLB) 32 or other cache structure that caches at least a portion of one or more address translation tables to accelerate the translation of virtual to real memory</u>

<u>addresses</u>, in a manner well known in the art. Therefore, it is not novel in the technological art that clients or the secondary partitions to do the mapping or maintain the address translation tables. Therefore, a client partition's translation tables' entry/entries can be invalidated thus prevented from containing references. Therefore, Armstrong's teaching seems disclose claim 8's limitation.

<u>Argument A6, Claim 22:</u> Appellant argues “The Examiner rejects claim 22 under 25 USC 102(a). Claim 22 recites features in addition to those found in claim 1. However, the Examiner makes no statements regarding the features of claim 22 or any corollaries in Armstrong”, page 20.

In response to the Appellants’ above argument, claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Armstrong et al. (US 6,467,007) in view of Farber et al. (US 2001/0056500) on pages 5 and 6. It is a typo that claim 22 is included on the section line of page 2.

<u>Argument B1, Claim 22:</u> “The combination of references does not disclose the claim 22 feature of “communicating an identifier from the first client partition to the second client partition””, pages 22-23.

In response to the Appellants' above argument, Examiner disagrees. The cited col. 1, lines 52-67 discloses "a partition manager maintains separate virtual memory address spaces for the various logical partitions so that the memory utilized by each logical partition is fully independent of the other logical partitions…whenever a logical partition attempts to access a particular virtual address, the partition manager translates the virtual address to a real address so that the shared memory can be accessed directly by the logical partition. The logical partitions operate independently with various resources allocated among the various partitions. Any logical partition can attempt to access a particular virtual address which can be a resource's address on a different partition. Therefore, the requested partition can be the "second partition" and the "resource's address" can be on the "first partition" in which the resource can be owned by the primary partition.

In addition, col. 5, lines 23-65 discloses "each logical partition 40-44 executes in a separate memory space, represented by virtual memory 60. Moreover each logical partition is statically and/or dynamically allocated a portion of the available resources in computer 10…Resources can be allocated in a number of manners…resources can be reallocated on a dynamic basis to service the needs of other logical partitions), thus, resources can be shared/mapped between any partitions including first client partition and second client partition. Also as shown in figure 2, partition B can be the first client partition and partition C can be the second client partition; col. 6, line 66 to col. 7, line 4, discloses: each processor 12 optionally includes a translation lookaside buffer (TLB) 32 or other cache structure that caches at least a portion of one or more address

translation tables to accelerate the translation of virtual to real memory addresses, in a manner well known in the art. Therefore, it is not novel in the technological art that clients or the secondary partitions to do the mapping or maintain the address translation tables. Thus, any secondary/client partition can perform the mapping when necessary.

Regarding the Appellant’s argument that “a partition manager is not a server partition”, in the Final Office Action, Examiner cited on page 2, last paragraph that “the primary partition (A) is the server partition”, the partition manager is one of the elements of the primary/server partition provides functions for the primary/server partition.

Regarding the Appellant’s argument that “Farber does not overcome the deficiencies of Armstrong”, Examiner disagrees. Examiner only relies on Farber's teaching of an identifier can be a cookie to show that this Appellant's claimed limitation is not novel in the technological art. Farber discloses “Optimized network resource location” – the title; “the resource is composed uniquely for each request; the resource relies on a so-called cookie" - pars 84-85; "the request for a resource is attached to a so-called "cookie" - par. 327. Thus, the cookie identifies the resource.

Argument B2, Claim 22: “The combination of references does not disclose the claim 22 feature of “mapping the logical resource into a logical address space of the second client partition, wherein the mapping is performed by the second client partition””, pages 23.

In response to the Appellants' above argument, Examiner disagrees. The cited col. 1, lines 52-67 discloses "a partition manager maintains separate virtual memory address spaces for the various logical partitions so that the memory utilized by each logical partition is fully independent of the other logical partitions…whenever a logical partition attempts to access a particular virtual address, the partition manager translates the virtual address to a real address so that the shared memory can be accessed directly by the logical partition. The logical partitions operate independently with various resources allocated among the various partitions. Any logical partition can attempt to access a particular virtual address which can be a resource's address on a different partition. Therefore, the requested partition can be the "second partition" and the "resource's address" can be on the "first partition" in which the resource can be owned by the primary partition.

In addition, col. 5, lines 23-65 discloses "each logical partition 40-44 executes in a separate memory space, represented by virtual memory 60. Moreover each logical partition is statically and/or dynamically allocated a portion of the available resources in computer 10…Resources can be allocated in a number of manners…resources can be reallocated on a dynamic basis to service the needs of other logical partitions), thus, resources can be shared/mapped between any partitions including first partition and second partition. Also as shown in figure 2, partition B can be the first client partition and partition C can be the second client partition; col. 6, line 66 to col. 7, line 4, discloses: each processor 12 optionally includes a translation lookaside buffer (TLB) 32 or other cache structure that caches at least a portion of one or more address

<u>translation tables to accelerate the translation of virtual to real memory addresses</u>, in a manner well known in the art. Therefore, it is not novel in the technological art that clients or the secondary partitions to do the mapping or maintain the address translation tables. Thus, any secondary/client partition, e.g. the second partition would perform the mapping.

Regarding the Appellant's argument that "a partition manager is not a server partition", in the Final Office Action, Examiner cited on page 2, last paragraph that "the primary partition (A) is the server partition", the partition manager is one of the elements of the primary/server partition provides functions for the primary/server partition.

Regarding the Appellant's argument that "Farber does not overcome the deficiencies of Armstrong", Examiner disagrees. Examiner only relies on Farber's teaching of an identifier can be a cookie to show that this Appellant's claimed limitation is not novel in the technological art. Farber discloses "Optimized network resource location" – the title; "the resource is composed uniquely for each request; the resource relies on a so-called cookie" - pars 84-85. Therefore, the requested client partition is communicating an identifier to the other client partition (which has the requested resource); "the request for a resource is attached to a so-called "cookie" - par. 327. Thus, the cookie identifies the resource.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/LINH BLACK/

Examiner, Art Unit 2159

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